

Ship 03/29

Work Order ID 141347

141347

Page 1

Wednesday, February 03, 2016 4:45:33 PM

Item ID: D4417-041 Accept *N900040100* Setup Start *NS1*

Revision ID:

Item Name: Step Assembly Stop *NS2*

Start Date: ~~2/3/2016~~ 3/21/16 Start Qty: 1.00 *1*

Required Date: ~~2/3/2016~~ 3/24/16 Req'd Qty: 1.00 *1*

Reference:

Cust Item ID:

Customer:

Approvals: Process Plan: MCS Date: FEB 04 2016 Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start *NR1*

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
D4417	B

100	Large Fab	0.00							
100									
Large Fab	Memo	0.01							
Large Fab	1-Cut D2622 to 106"AS PER DWG								
	2-DRILL HOLES USING DT9765								
	3-CUT ENDS AT 45 DEG AS PER DWG								

120	QC5- Inspect part completeness to step on W/O	0.00							
120									
QC	Memo	0.00							
Quality Control									

DAS
43
9-89

MAR 16 2016

MAR 17 2016

DAS
24
9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																																																																																																																											
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<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="4" style="text-align: left;">Root Cause</th> <th colspan="8" style="text-align: left;">FAULT CATEGORY</th> </tr> </thead> <tbody> <tr> <td>Environment</td><td>☐</td> <td>No Re-verification</td><td>☐</td> <td>Pressure/Forced</td><td>☐</td> <td>Temperature/Cure</td><td>☐</td> <td>Power Loss/Surge</td><td>☐</td> <td>Positioned Wrong</td><td>☐</td> </tr> <tr> <td>Design</td><td>☐</td> <td>Operator</td><td>☐</td> <td>Bending</td><td>☐</td> <td>Set-up</td><td>☐</td> <td>Folio/Program</td><td>☐</td> <td>Outside Dimensions</td><td>☐</td> </tr> <tr> <td>Doc/Data</td><td>☐</td> <td>Offset/Setup</td><td>☐</td> <td>Centre Not Concentric</td><td>☐</td> <td>BOM/Route</td><td>☐</td> <td>Grain</td><td>☐</td> <td>Over/Under tolerance</td><td>☐</td> </tr> <tr> <td>Equip/Tooling</td><td>☐</td> <td>Supplier</td><td>☐</td> <td>Cracks</td><td>☐</td> <td>Broken/Damage/Defect</td><td>☐</td> <td>Weld</td><td>☐</td> <td>Part Incorrect</td><td>☐</td> </tr> <tr> <td>Handling/Pre</td><td>☐</td> <td>Training</td><td>☐</td> <td>Crimp/Kink/Ripple/Wave</td><td>☐</td> <td>Inspection Incomplete/Unqualified</td><td>☐</td> <td>Wrong Stock Pulled</td><td>☐</td> <td>Part Lost/Missing</td><td>☐</td> </tr> <tr> <td>Material</td><td>☐</td> <td>Use for Testing</td><td>☐</td> <td>Cuffs</td><td>☐</td> <td>Contamination</td><td>☐</td> <td>Out of Sequence</td><td>☐</td> <td>Part Moved</td><td>☐</td> </tr> <tr> <td>Internal Transport</td><td>☐</td> <td>Poor Information</td><td>☐</td> <td>Crushing</td><td>☐</td> <td>Countersink</td><td>☐</td> <td>Off-set</td><td>☐</td> <td>Drawing</td><td>☐</td> </tr> <tr> <td>Tribal Knowledge</td><td>☐</td> <td>Rushing</td><td>☐</td> <td>Heat Treat</td><td>☐</td> <td>Cut Too Short</td><td>☐</td> <td>Mislabeled</td><td>☐</td> <td>Finish</td><td>☐</td> </tr> <tr> <td>LOA</td><td>☐</td> <td>Product Improvement</td><td>☐</td> <td>Wave/Twist in Tube</td><td>☐</td> <td>Instructions Incomplete/Unclear</td><td>☐</td> <td>Fit/Function</td><td>☐</td> <td>Misread</td><td>☐</td> </tr> <tr> <td>Substation</td><td>☐</td> <td>Process Improvement</td><td>☐</td> <td>Marks/Chatter</td><td>☐</td> <td>Drill Holes</td><td>☐</td> <td>Misaligned/off center</td><td>☐</td> <td>Turning Sequence</td><td>☐</td> </tr> <tr> <td>Past Expiry Date</td><td>☐</td> <td>Manufacturing Process</td><td>☐</td> <td colspan="8" rowspan="2" style="vertical-align: top;">OTHER :</td> </tr> <tr> <td>Misidentified</td><td>☐</td> <td>Past Due</td><td>☐</td> </tr> </tbody> </table>												Root Cause				FAULT CATEGORY								Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong	☐	Design	☐	Operator	☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions	☐	Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance	☐	Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect	☐	Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing	☐	Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐	Out of Sequence	☐	Part Moved	☐	Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐	Off-set	☐	Drawing	☐	Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Finish	☐	LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread	☐	Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence	☐	Past Expiry Date	☐	Manufacturing Process	☐	OTHER :								Misidentified	☐	Past Due	☐
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Item ID: D4417-041 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Step Assembly
 Start Date: 2/3/2016 Start Qty: 1.00 ***1*** Cust Item ID:
 Required Date: 2/3/2016 Req'd Qty: 1.00 ***1*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	Chemical Conversion Coat per QSI005 4.1	0.00							
130									
HandFinish	Memo	0.00				①		DAS 43 9-89	MAR 16 2016
Hand Finishing									
140	QC7-Inspect Chemical Conversion Coat	0.00							
140									
QC	Memo	0.00				/		MAR 17 2016	DAS 24 9-89
Quality Control									
150	Weld per dwg A/R Aluminum rod Batch: 4130137	0.00							
150	Large Fab								
Large Fab	Memo					①		DAS 43 9-89	MAR 16 2016
Large Fab	1-SWAGE TUBES AS PER DWG Dr 0.01-17								
	2-Weld cap per dwg D4417								
	3-grind flush								

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
		OTHER : ☐							

Work Order ID 141347

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Item ID: D4417-041 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Step Assembly
Start Date: 2/3/2016 Start Qty: 1.00 ***1*** Cust Item ID:
Required Date: 2/3/2016 Req'd Qty: 1.00 ***1*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160	QC10- Inspect visual per QSI004- ground welds	0.00							
160									
QC	Memo	0.00							<u>① 16-03-21 PD</u>
Quality Control									
170	QC5- Inspect part completeness to step on W/O	0.00							
170									
QC	Memo	0.00							<u>① 16-03-21 PD</u>
Quality Control									
180	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum	0.00							
180									
Powdercoat	Memo	0.00							<u>1. ① 1603-22. DAS 34 9:00</u>
Powder Coating	* 1-Touch up alodine								
	START TIME: 10:40								
	OVEN TEMPERATURE: 320°								
	FINISH TIME: 11:10								

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause		FAULT CATEGORY					
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐		
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐		
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐		
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐		
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐		
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐		
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Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐		
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐		
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐		
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____					
Misidentified ☐	Past Due ☐						

Work Order ID 141347

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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
190 *190* HandFinish Hand Finishing	Wing Walk as per dwg QSI005 4.4 Batch <u>M134124</u> HandFinishing Memo	0.00 0.01				1	1	16603123	
200 *200* QC Quality Control	QC3- Inspect Part Finish Memo	0.00 0.00				1			DAS 38 9-89 MAR 24 2016
210 *210* Packaging Packaging	Identify as per dwg & Stock Location: <u>PKA</u> Memo	0.00 0.00				1		MAR 29 2016	SP

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QS1042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Description Work Order Deviation				Disposition					
Root Cause		FAULT CATEGORY							
Environment ☐	☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐			
Design ☐	☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐			
Doc/Data ☐	☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐			
Equip/Tooling ☐	☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐			
Handling/Pre ☐	☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐			
Material ☐	☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐			
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LOA ☐	☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐			
Substation ☐	☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐			
Past Expiry Date ☐	☐	Manufacturing Process ☐	OTHER : _____						
Misidentified ☐	☐	Past Due ☐							

Work Order ID 141347***141347***

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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
220	QC21- Final Inspection - Work Order Release	0.00							
220									
QC	Memo	0.00							
Quality Control									

MCS MAR 29 2016

MCS MAR 29 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QS1042) Approval	
Description Work Order Deviation		Disposition		Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
		OTHER : ☐			

Picklist Print

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Work Order ID: 141347

141347

Parent Item: D4417-041

D4417-041

Parent Item Name: Step Assembly

Start Date: 2/3/2016

Required Date: 2/3/2016

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP REV:A NEW ISSUE 11-07-11 JLM VERIFIED BY:EC
REV:B 11.08.17 PER REV.B. DD VERF:JLM IPP

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
✓ *D2622-120C* Step Extrusion		Manufactured	No			100	Each	49.2360	1	1		DAS 43 9-89	MAR 16 2016
**B134783 → 1													
				<u>Location</u>			<u>Loc Qty</u>	<u>Loc Code</u>					
				WA003			49.236						
				130161			0.236						
				134783			49						
✓ *D2734* Step End Plate		Manufactured	No			150	Each	56.0000	2	2		DAS 43 9-89	MAR 16 2016
**B135488 → 2													
				<u>Location</u>			<u>Loc Qty</u>	<u>Loc Code</u>					
				WA003			56						
				133142			8						
				134415			30						
				135488			18						
✓ *D4425-1* Step Spacer		Manufactured	No			150	Each	21.0000	2	2		DAS 43 9-89	MAR 16 2016
**B85917 → 2													
				<u>Location</u>			<u>Loc Qty</u>	<u>Loc Code</u>					
				WA003			21						
				140054			21						

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐				
Date :	Step #:	QTY Effective :			MRB (QS1042) Approval	
Description Work Order Deviation		Disposition				
					Completed By	
					Lead hand / Supervisor Approval Verification	
					QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐				
OTHER : ☐						

9 10 2 10 7 2

4

141347 MJS
1602-04

D4417-011 206L / 407 Q.R. STEP ASSEMBLY

1

6 10 5 10 9

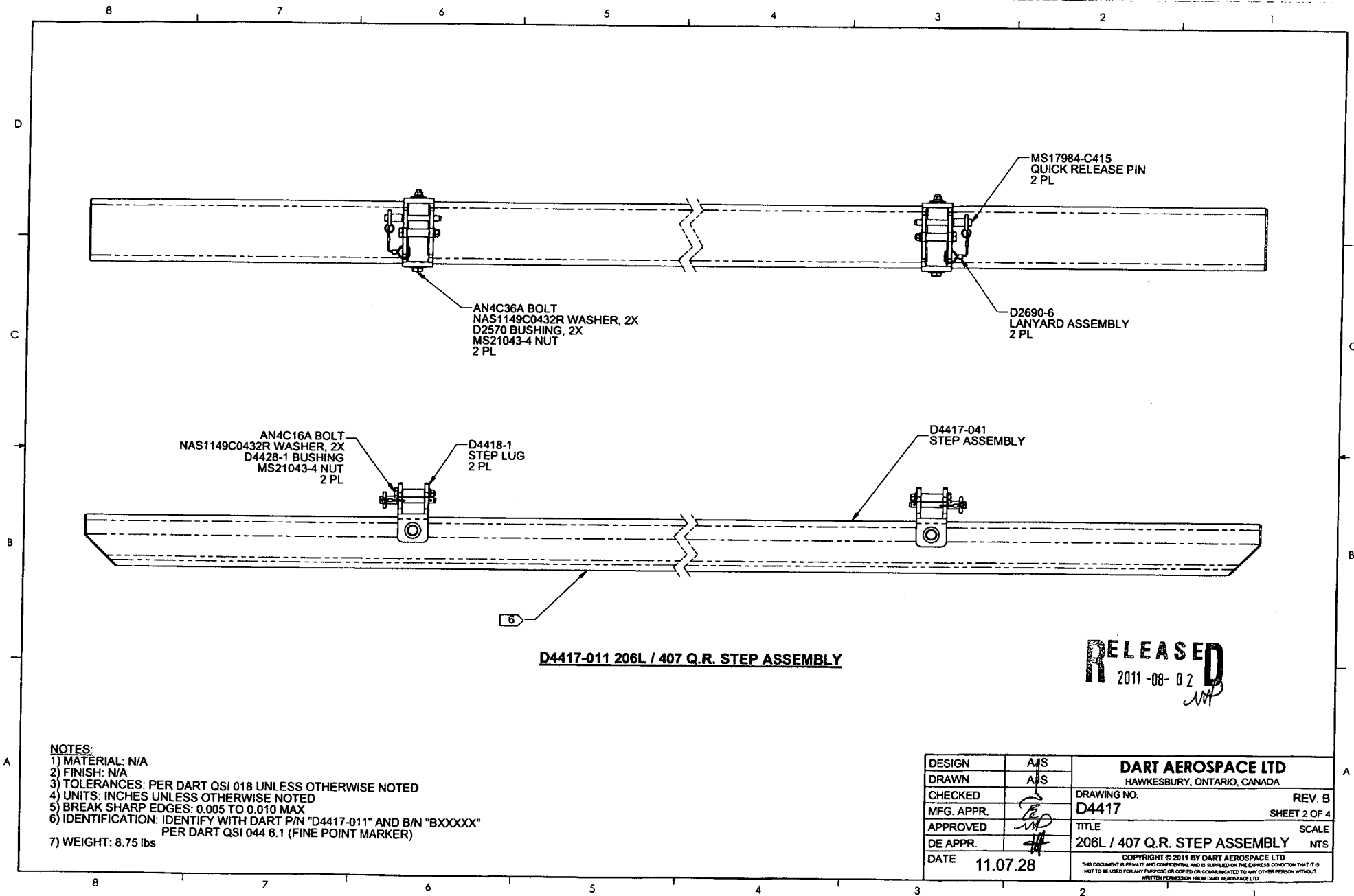
3

8

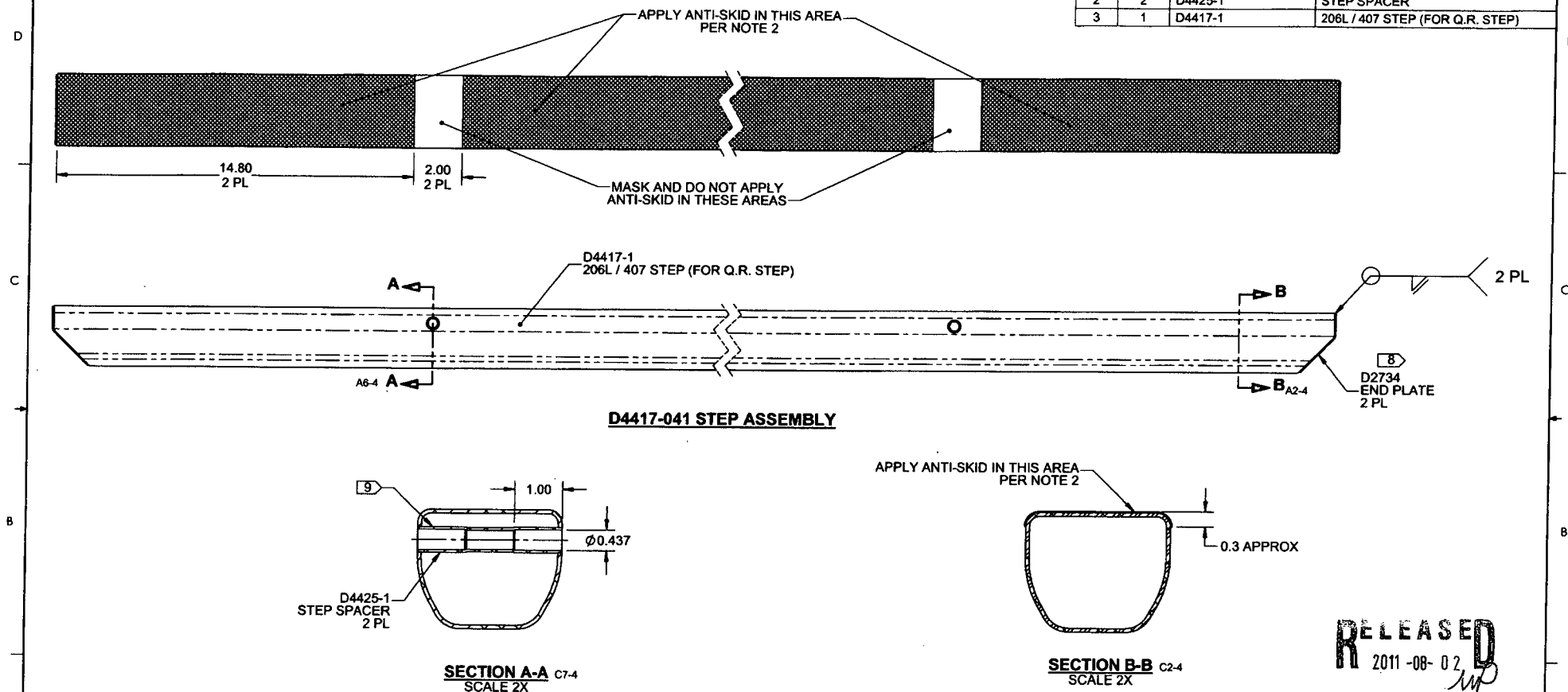
ITEM	QTY	P/N	DESCRIPTION
	X	D4417-011	206L / 407 Q.R. STEP ASSEMBLY
1	1	D4417-041	STEP ASSEMBLY
2	4	D2570	BUSHING
3	2	D2690-6	LANYARD ASSEMBLY
4	2	D4418-1	STEP LUG
5	2	D4428-1	BUSHING
6	2	AN4C16A	BOLT
7	2	AN4C36A	BOLT
8	2	MS17984-C415	QUICK RELEASE PIN (BLBS-020)
9	4	MS21043-4	NUT
10	8	NAS1149C0432R	WASHER

RELEASED
2011-08-02

B	REPLACED NAS43DD4-64 SPACER WITH ITEM 5. ITEM 3 WAS -5.	AJS	11.07.28
A	NEW ISSUE	AJS	11.07.04
REV.	DESCRIPTION	BY	DATE
DESIGN	AJS		
DRAWN	AJS		
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	11.07.28		
DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA DRAWING NO. D4417 TITLE 206L / 407 Q.R. STEP ASSEMBLY SCALE NTS SHEET 1 OF 4 REV. B COPYRIGHT © 2011 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD			



ITEM	QTY	P/N	DESCRIPTION
	X	D4417-041	STEP ASSEMBLY
1	2	D2734	END PLATE
2	2	D4425-1	STEP SPACER
3	1	D4417-1	206L / 407 STEP (FOR Q.R. STEP)



NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
APPLY BLACK ANTI-SKID PAINT PER DART QSI 005 4.4
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 8.00 lbs
- 8) APPLY ALODINE AFTER WELDING ON THE D2734 END CAPS AND PRIOR TO INSTALLATION OF D4425-1 STEP SPACERS.
- 9) SWAGE TO Ø0.437 X 1.00 DEEP PER QSI 002

DESIGN	AJS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	AJS		
CHECKED	AJS	DRAWING NO. D4417	REV. B
MFG. APPR.	KE	SHEET 3 OF 4	
APPROVED	WFO	TITLE	SCALE
DE APPR.	WFO	206L / 407 Q.R. STEP ASSEMBLY	NTS
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D4417-1 206L / 407 STEP (FOR Q.R. STEP)

NOTES:

- 1) MATERIAL: MAKE FROM D2622 EXTRUSION
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 7.77 lbs

DESIGN	AJS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	AJS		
CHECKED		DRAWING NO. D4417	REV. B
MFG. APPR.		TITLE	SHEET 4 OF 4
APPROVED		206L / 407 Q.R. STEP ASSEMBLY	SCALE
DE APPR.			NTS
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RELEASED
2011-08-02